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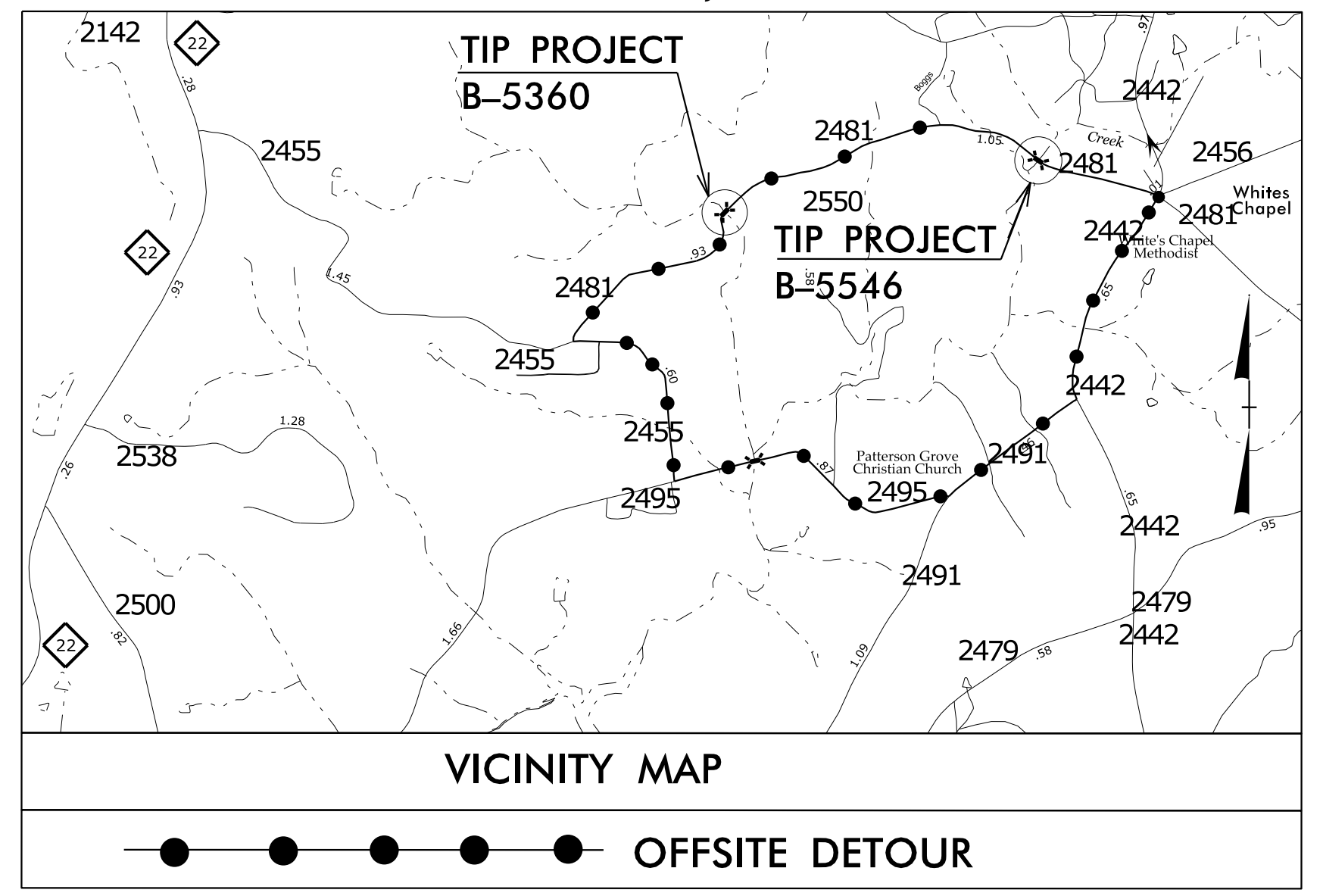
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09/08/99

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TIP PROJECT: B-5360/B-5546
CONTRACT: C203805

See Sheet 1A For Index of Sheets
 See Sheet 2 For Conventional Symbols

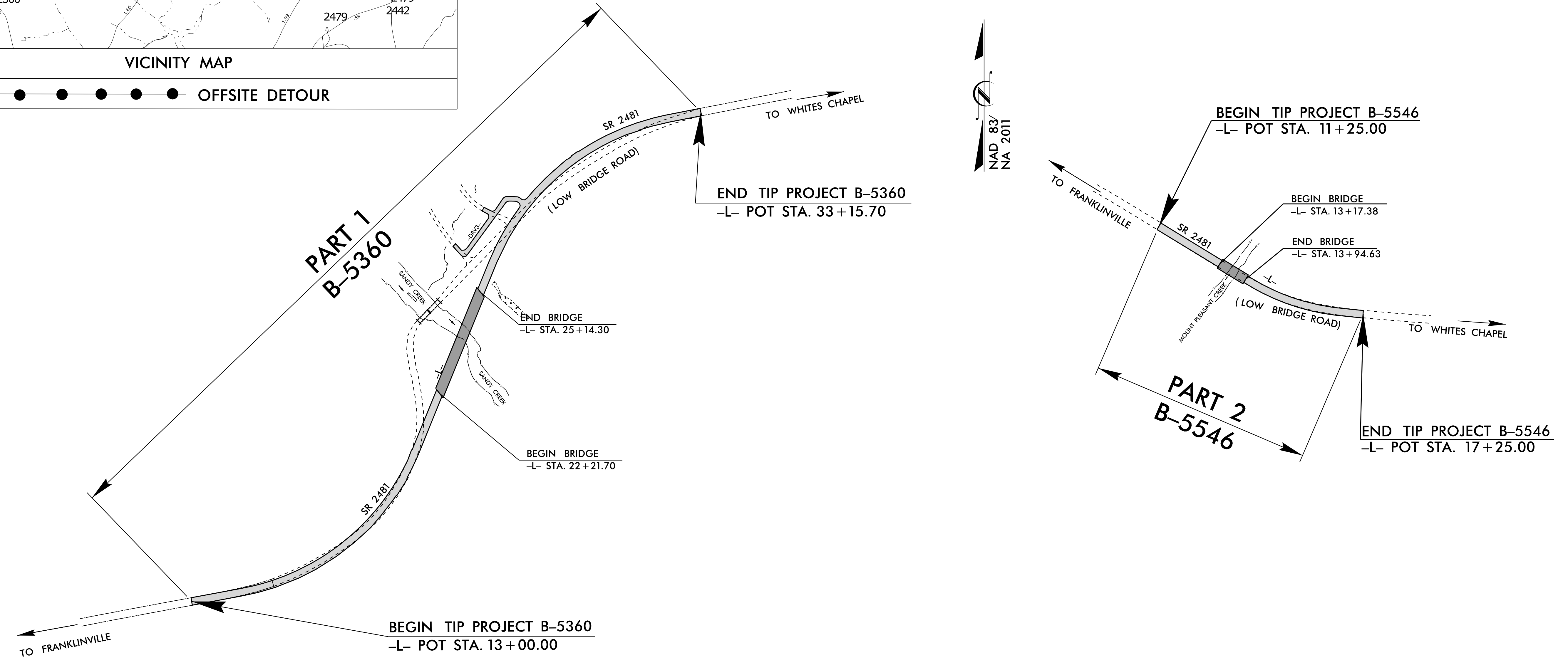


STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
RANDOLPH COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5360 / B-5546	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
46074.1.1	BRZ-2481(2)	B-5360 PE	
45538.1.1	BRZ-2481(1)	B-5546 PE	
46074.2.1		B-5360 R/W & UTIL.	
45538.2.1		B-5546 R/W & UTIL.	
46074.3.1		CONST.	

**LOCATION: BRIDGE NO 374 OVER SANDY CREEK ON SR 2481 (LOW BRIDGE RD.)
 AND BRIDGE NO 307 OVER MOUNT PLEASANT CREEK ON SR 2481 (LOW BRIDGE RD.)**

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURES



PROJECT LENGTH	
LENGTH OF ROADWAY TIP PROJECT B-5360 =	0.327 MI
LENGTH OF STRUCTURE TIP PROJECT B-5360 =	0.055 MI
TOTAL LENGTH OF STATE TIP PROJECT B-5360 =	0.382 MI
LENGTH OF ROADWAY TIP PROJECT B-5546 =	0.099 MI
LENGTH OF STRUCTURE TIP PROJECT B-5546 =	0.015 MI
TOTAL LENGTH OF STATE TIP PROJECT B-5546 =	0.114 MI
TOTAL LENGTH OF STATE TIP PROJECTS B-5360 / B-5546 =	0.496 MI

Prepared in the Office of: DIVISION OF HIGHWAYS 1000 Birch Ridge Dr., Raleigh NC, 27610 2012 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE:	B-5360: OCTOBER 9, 2015
RIGHT OF WAY DATE:	B-5546: OCTOBER 6, 2015
LETTING DATE:	OCTOBER 18, 2016





**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

EFF. 01-17-2012
REV. 10-30-2012

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
2	CONVENTIONAL SYMBOLS
PART I (B-5360)	
1	TITLE SHEET
1C-1	SURVEY CONTROL SHEET
2A-1	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2C-1	DETAIL OF STRUCTURE ANCHOR UNITS
2C-2	DETAIL OF COAL COMBUSTION PRODUCT PLACEMENT
3B-1	SUMMARY OF PIPES 48" AND UNDER, GUARDRAIL SUMMARY, PAVEMENT REMOVAL SUMMARY, SUMMARY OF EARTHWORK, AND SHOULDER BERM GUTTER SUMMARY
3G-1	GEOTECHNICAL SUMMARIES
3P-1	PARCEL INDEX SHEET
4 & 5	PLAN SHEETS
6	PROFILE SHEET
TMP-1 THRU TMP-4	TRAFFIC MANAGEMENT PLANS
PMP-1 THRU PMP-3	PAVEMENT MARKING PLANS
EC-1 THRU EC-7	EROSION CONTROL PLANS
RF-1	REFORESTATION PLAN
SIGN-1 THRU SIGN-6	SIGNING PLANS
UO-1 THRU UO-3	UTILITY BY OTHERS PLANS
X-1	CROSS-SECTION SUMMARY SHEET
X-2 THRU X-17	CROSS-SECTIONS
S-1 THRU S-22	STRUCTURE PLANS
PART II (B-5546)	
1	TITLE SHEET
1C-1	SURVEY CONTROL SHEET
2A-1	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2C-1	DETAIL OF STRUCTURE ANCHOR UNITS
3B-1	SUMMARY OF PIPES 48" AND UNDER, GUARDRAIL SUMMARY, PAVEMENT REMOVAL SUMMARY, SUMMARY OF EARTHWORK, AND SHOULDER BERM GUTTER SUMMARY
3G-1	GEOTECHNICAL SUMMARIES
4	PLAN SHEET
5	PROFILE SHEET
PMP-1 THRU PMP-2	PAVEMENT MARKING PLANS
EC-1 THRU EC-5	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-3	SIGNING PLANS
UO-1 THRU UO-2	UTILITY BY OTHERS PLANS
X-1	CROSS SECTION SUMMARY SHEET
X-2 THRU X-6	CROSS SECTIONS
S-23 THRU S-38	STRUCTURE PLANS

GENERAL NOTES: 2012 SPECIFICATIONS
EFFECTIVE: 01-17-2012
REVISED: 10-31-2014

GRADING AND SURFACING OR RESURFACING AND WIDENING:
THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

SUPERELEVATION:
ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

SHOULDER CONSTRUCTION:
ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01

SIDE ROADS:
THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

UNDERDRAINS:
UNDERDRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.03 AT LOCATIONS DIRECTED BY THE ENGINEER.

GUARDRAIL:
THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

TEMPORARY SHORING:
SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.

END BENTS:
THE ENGINEER SHALL CHECK THE STRUCTURE END BENT PLANS, DETAILS, AND CROSS-SECTION PRIOR TO SETTING OF THE SLOPE STAKES FOR THE EMBANKMENT OR EXCAVATION APPROACHING A BRIDGE.

UTILITIES:
UTILITY OWNERS ON THIS PROJECT ARE RANDOLPH EMC-POWER AND CENTURYLINK-TELEPHONE.

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

RIGHT-OF-WAY MARKERS:
ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY CONTRACT.

2012 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 2 - EARTHWORK	
200.03	Method of Clearing - Method III
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superlevation - Two Lane Pavement
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
DIVISION 4 - MAJOR STRUCTURES	
422.11	Reinforced Bridge Approach Fills - Sub Regional Tier
DIVISION 5	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 8 - INCIDENTALS	
806.01	Concrete Right of Way Marker
806.02	Granite Right of Way Marker
815.03	Pipe Underdrain and Blind Drain
840.00	Concrete Base Pad for Drainage Structures
840.25	Anchorage for Frames - Brick or Concrete or Precast
840.29	Frames and Narrow Slot Flat Grates
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
840.46	Traffic Bearing Precast Drainage Structure
840.66	Drainage Structure Steps
846.01	Concrete Curb, Gutter and Curb & Gutter
846.04	Drop Inlet Installation in Shoulder Berm Gutter
862.01	Guardrail Placement
862.02	Guardrail Installation
876.01	Rip Rap in Channels
876.02	Guide for Rip Rap at Pipe Outlets
876.04	Drainage Ditches with Class 'B' Rip Rap

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

*Note: Not to Scale *S.U.E. = Subsurface Utility Engineering*

04/06/15

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EP
Property Corner	-----
Property Monument	□ EDM
Parcel/Sequence Number	(23)
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	----- WLB
Proposed Wetland Boundary	----- WLB
Existing Endangered Animal Boundary	----- EAB
Existing Endangered Plant Boundary	----- EPB
Existing Historic Property Boundary	----- HPB
Known Contamination Area: Soil	☠
Potential Contamination Area: Soil	☠
Known Contamination Area: Water	☠
Potential Contamination Area: Water	☠
Contaminated Site: Known or Potential	☠

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○ S
Well	○ W
Small Mine	✕
Foundation	□
Area Outline	□
Cemetery	□
Building	□
School	□
Church	□
Dam	□

HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	-----
Jurisdictional Stream	----- JS
Buffer Zone 1	----- BZ 1
Buffer Zone 2	----- BZ 2
Flow Arrow	←
Disappearing Stream	-----
Spring	○
Wetland	-----
Proposed Lateral, Tail, Head Ditch	-----
False Sump	-----

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○ MILEPOST 35
Switch	□ SWITCH
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY:

Baseline Control Point	◇
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	----- RW
Proposed Right of Way Line with Iron Pin and Cap Marker	----- RW
Proposed Right of Way Line with Concrete or Granite R/W Marker	----- RW
Proposed Control of Access Line with Concrete CA Marker	----- CA
Existing Control of Access	----- CA
Proposed Control of Access	----- CA
Existing Easement Line	----- E
Proposed Temporary Construction Easement	----- E
Proposed Temporary Drainage Easement	----- TDE
Proposed Permanent Drainage Easement	----- PDE
Proposed Permanent Drainage / Utility Easement	----- DUE
Proposed Permanent Utility Easement	----- PUE
Proposed Temporary Utility Easement	----- TUE
Proposed Aerial Utility Easement	----- AUE
Proposed Permanent Easement with Iron Pin and Cap Marker	◇

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	----- C
Proposed Slope Stakes Fill	----- F
Proposed Curb Ramp	----- CR
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	-----

VEGETATION:

Single Tree	☼
Single Shrub	☼
Hedge	-----
Woods Line	-----

Orchard	☼
Vineyard	□ Vineyard

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	----- CONC
Bridge Wing Wall, Head Wall and End Wall	----- CONC WW
MINOR:	
Head and End Wall	----- CONC HW
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	□ CB
Paved Ditch Gutter	-----
Storm Sewer Manhole	⊙
Storm Sewer	----- S

UTILITIES:

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	⊙
Power Line Tower	⊠
Power Transformer	⊠
U/G Power Cable Hand Hole	○
H-Frame Pole	●
U/G Power Line LOS B (S.U.E.*)	----- P
U/G Power Line LOS C (S.U.E.*)	----- P
U/G Power Line LOS D (S.U.E.*)	----- P

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊙
Telephone Pedestal	⊠
Telephone Cell Tower	⊠
U/G Telephone Cable Hand Hole	○
U/G Telephone Cable LOS B (S.U.E.*)	----- T
U/G Telephone Cable LOS C (S.U.E.*)	----- T
U/G Telephone Cable LOS D (S.U.E.*)	----- T
U/G Telephone Conduit LOS B (S.U.E.*)	----- TC
U/G Telephone Conduit LOS C (S.U.E.*)	----- TC
U/G Telephone Conduit LOS D (S.U.E.*)	----- TC
U/G Fiber Optics Cable LOS B (S.U.E.*)	----- T FO
U/G Fiber Optics Cable LOS C (S.U.E.*)	----- T FO
U/G Fiber Optics Cable LOS D (S.U.E.*)	----- T FO

WATER:

Water Manhole	⊙
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
U/G Water Line LOS B (S.U.E.*)	----- W
U/G Water Line LOS C (S.U.E.*)	----- W
U/G Water Line LOS D (S.U.E.*)	----- W
Above Ground Water Line	----- A/G Water

TV:

TV Pedestal	⊠
TV Tower	⊗
U/G TV Cable Hand Hole	○
U/G TV Cable LOS B (S.U.E.*)	----- TV
U/G TV Cable LOS C (S.U.E.*)	----- TV
U/G TV Cable LOS D (S.U.E.*)	----- TV
U/G Fiber Optic Cable LOS B (S.U.E.*)	----- TV FO
U/G Fiber Optic Cable LOS C (S.U.E.*)	----- TV FO
U/G Fiber Optic Cable LOS D (S.U.E.*)	----- TV FO

GAS:

Gas Valve	◇
Gas Meter	⊕
U/G Gas Line LOS B (S.U.E.*)	----- G
U/G Gas Line LOS C (S.U.E.*)	----- G
U/G Gas Line LOS D (S.U.E.*)	----- G
Above Ground Gas Line	----- A/G Gas

SANITARY SEWER:

Sanitary Sewer Manhole	⊙
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	----- SS
Above Ground Sanitary Sewer	----- A/G Sanitary Sewer
SS Forced Main Line LOS B (S.U.E.*)	----- FSS
SS Forced Main Line LOS C (S.U.E.*)	----- FSS
SS Forced Main Line LOS D (S.U.E.*)	----- FSS

MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	⊠
Utility Located Object	○
Utility Traffic Signal Box	⊠
Utility Unknown U/G Line LOS B (S.U.E.*)	----- ?UTL
U/G Tank; Water, Gas, Oil	□
Underground Storage Tank, Approx. Loc.	⊠ UST
A/G Tank; Water, Gas, Oil	□
Geoenvironmental Boring	⊕
U/G Test Hole LOS A (S.U.E.*)	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

09/08/99

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

RANDOLPH COUNTY

LOCATION: BRIDGE NO 374 OVER SANDY CREEK
ON SR 2481 (LOW BRIDGE RD.)

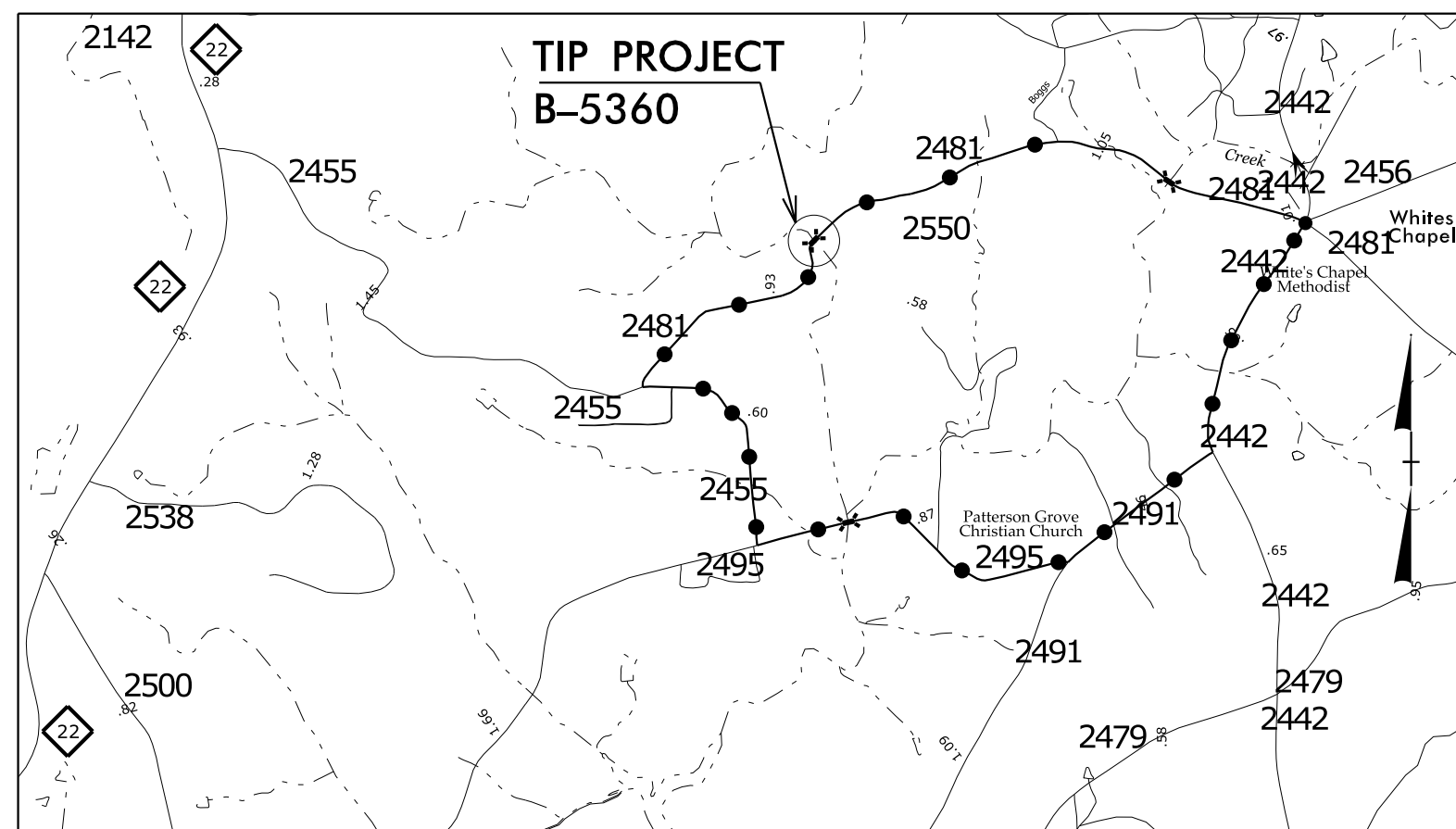
TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5360	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
46074.1.1	BRZ-2481(2)	PE	
46074.2.1		RW & UTIL.	
46074.3.1		CONST.	

PART 1

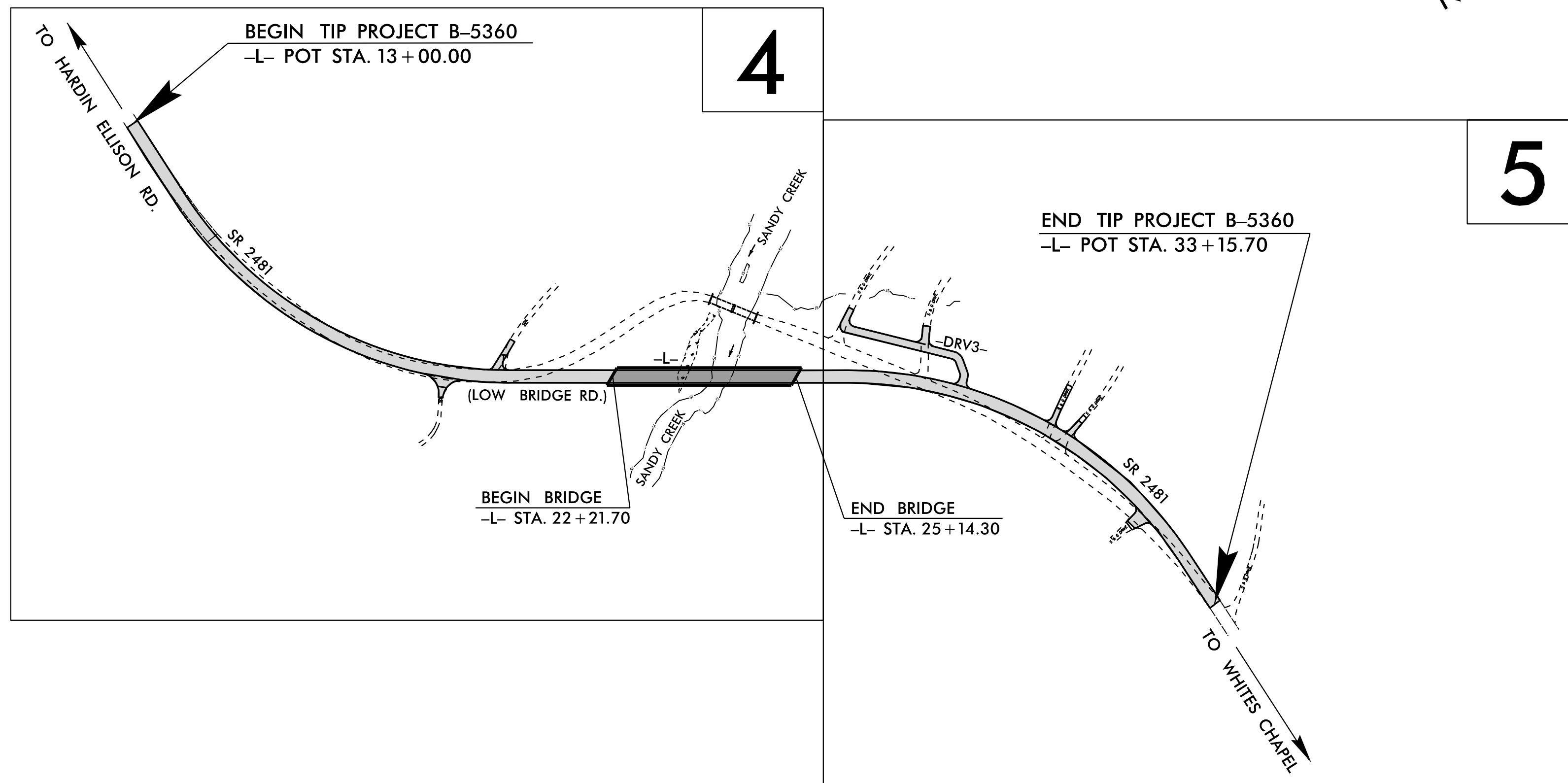
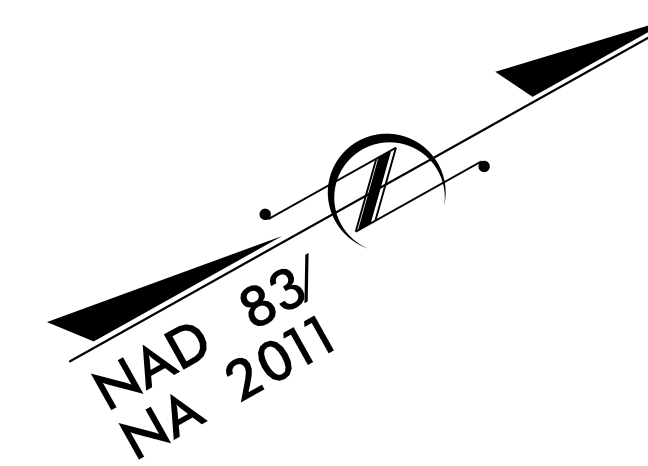
TIP PROJECT: B-5360

CONTRACT: C203805



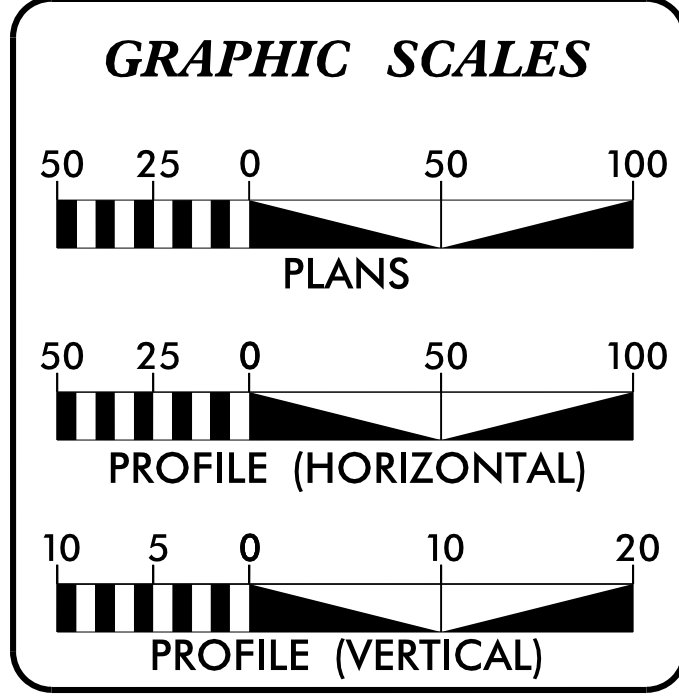
VICINITY MAP

● ● ● ● ● OFFSITE DETOUR



DESIGN EXCEPTION REQUIRED FOR SAG VERTICAL CURVE AND NIGHTTIME STOPPING SIGHT DISTANCE.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



DESIGN DATA

ADT 2014 =	400 VPD
ADT 2040 =	700 VPD
K =	13 %
D =	60 %
T =	9 % *
V =	40 MPH
* TTST = 1% DUAL 8%	
FUNC CLASS =	RURAL, LOCAL
SUB REGIONAL TIER	

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT B-5360 =	0.327 MI
LENGTH OF STRUCTURE TIP PROJECT B-5360 =	0.055 MI
TOTAL LENGTH OF STATE TIP PROJECT B-5360 =	0.382 MI

Prepared in the Office of:

DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2012 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE: OCTOBER 9, 2015	JAMES A. SPEER, PE PROJECT ENGINEER
LETTING DATE: OCTOBER 18, 2016	NYA K. BOAYUE, PE PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

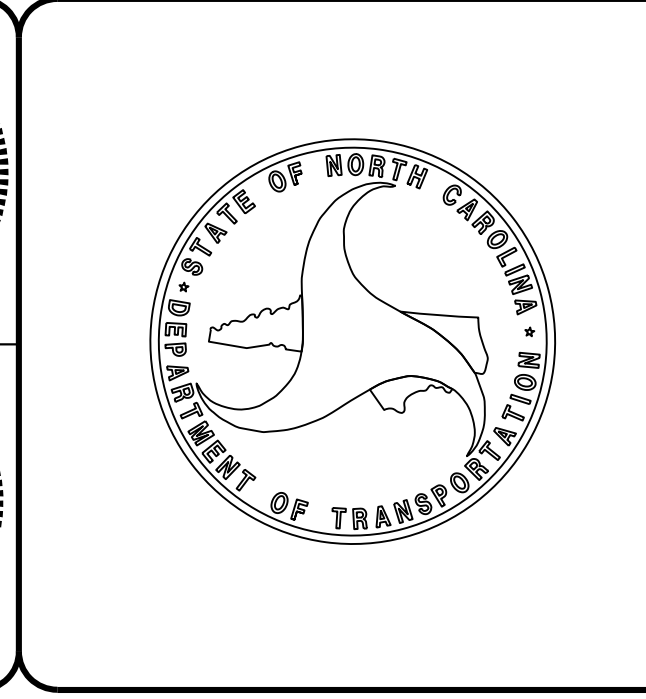
7/28/2016

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Signature
SIGNATURE

ROADWAY DESIGN ENGINEER

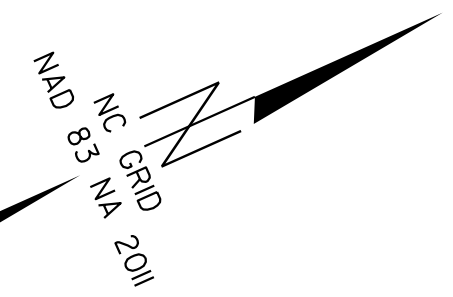
7/28/2016

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Signature
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SURVEY CONTROL SHEET B-5360



NCDOT GPS STATION "B5360-1"
LOCALIZED PROJECT COORDINATES
N = 740507.2220
E = 1801196.8870

LOCALIZED PROJECT COORDINATES
-L- STA. 13+00.00 BEGIN TIP PROJECT B-5360
N = 740650.4720
E = 1801967.4787

NCDOT GPS STATION "B5360-2"
LOCALIZED PROJECT COORDINATES
N = 740654.5990
E = 1802063.5280

NCDOT BASELINE STATION "BL-101"
LOCALIZED PROJECT COORDINATES
N = 740802.0840
E = 1802399.9190

NCDOT BASELINE STATION "BL-103"
LOCALIZED PROJECT COORDINATES
N = 741212.4900
E = 1802581.7380

NCDOT BASELINE STATION "BL-104"
LOCALIZED PROJECT COORDINATES
N = 741395.9900
E = 1802552.7780

BM1 ELEVATION = 494.77
L STATION 23+90.00 87 LEFT
IN SYCAMORE TREE

NCDOT BASELINE STATION "BL-105"
LOCALIZED PROJECT COORDINATES
N = 741750.0470
E = 1802895.5630

NCDOT BASELINE STATION "BL-102"
LOCALIZED PROJECT COORDINATES
N = 740974.9650
E = 1802549.2980

NCDOT BASELINE STATION "BL-106"
LOCALIZED PROJECT COORDINATES
N = 741935.2900
E = 1803187.1130

LOCALIZED PROJECT COORDINATES
-L- STA. 33+15.70 END TIP PROJECT B-5360
N = 741952.3498
E = 1803320.9088

NCDOT BASELINE STATION "BL-107"
LOCALIZED PROJECT COORDINATES
N = 741985.6460
E = 1803561.9880

BL POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
2	B5360-2	740654.5990	1802063.5280	561.26	13+95.18	13.51 RT
101	BL-101	740802.0840	1802399.9190	549.81	17+68.25	14.14 RT
102	BL-102	740974.9650	1802549.2980	539.63	19+83.66	20.37 RT
103	BL-103	741212.4900	1802581.7380	517.09	22+13.61	43.80 LT
104	BL-104	741395.9900	1802552.7780	497.77	23+72.57	139.94 LT
105	BL-105	741750.0470	1802895.5630	549.88	28+35.27	8.37 LT
106	BL-106	741935.2900	1803187.1130	569.37	31+81.85	18.65 LT
107	BL-107	741985.6460	1803561.9880	573.35	35+58.68	13.66 RT

.....
 BM1 ELEVATION = 494.77
 N 741392 E 1802608
 L STATION 23+90.00 87 LEFT
 RR SPIKE IN BASE OF 18IN SYCAMORE TREE

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "B5360-2" WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF NORTHING: 740654.5990(ft) EASTING: 1802063.5280(ft) ELEVATION: 561.257(ft) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9998934721 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B5360-2" TO -L- STATION 13+00.00 IS S 87° 32' 22.7" W 96.138' ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

NOTES:

- THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT: [HTTPS://CONNECT.NCDOT.GOV/RESOURCES/LOCATION](https://connect.ncdot.gov/resources/location) THE FILES TO BE FOUND ARE AS FOLLOWS: b5360_ls_control.txt SITE CALIBRATION INFORMATION HAS NOT BEEN PROVIDED FOR THIS PROJECT IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
- INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT. PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM.

NOTE: DRAWING NOT TO SCALE

6/2/09

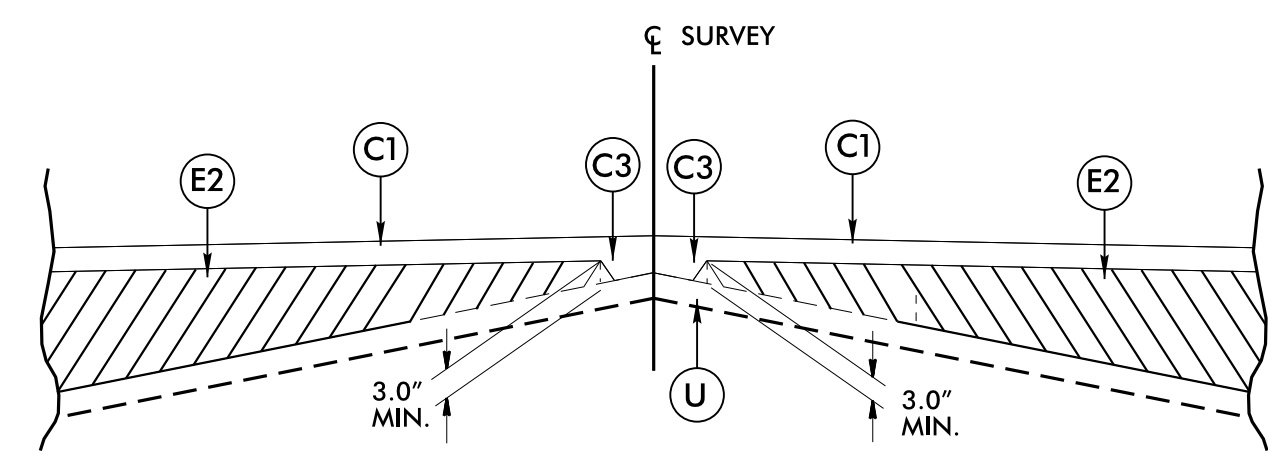
26 JUL 2016 10:41 AM B5360_1s_1c-1.dgn

6/2/09

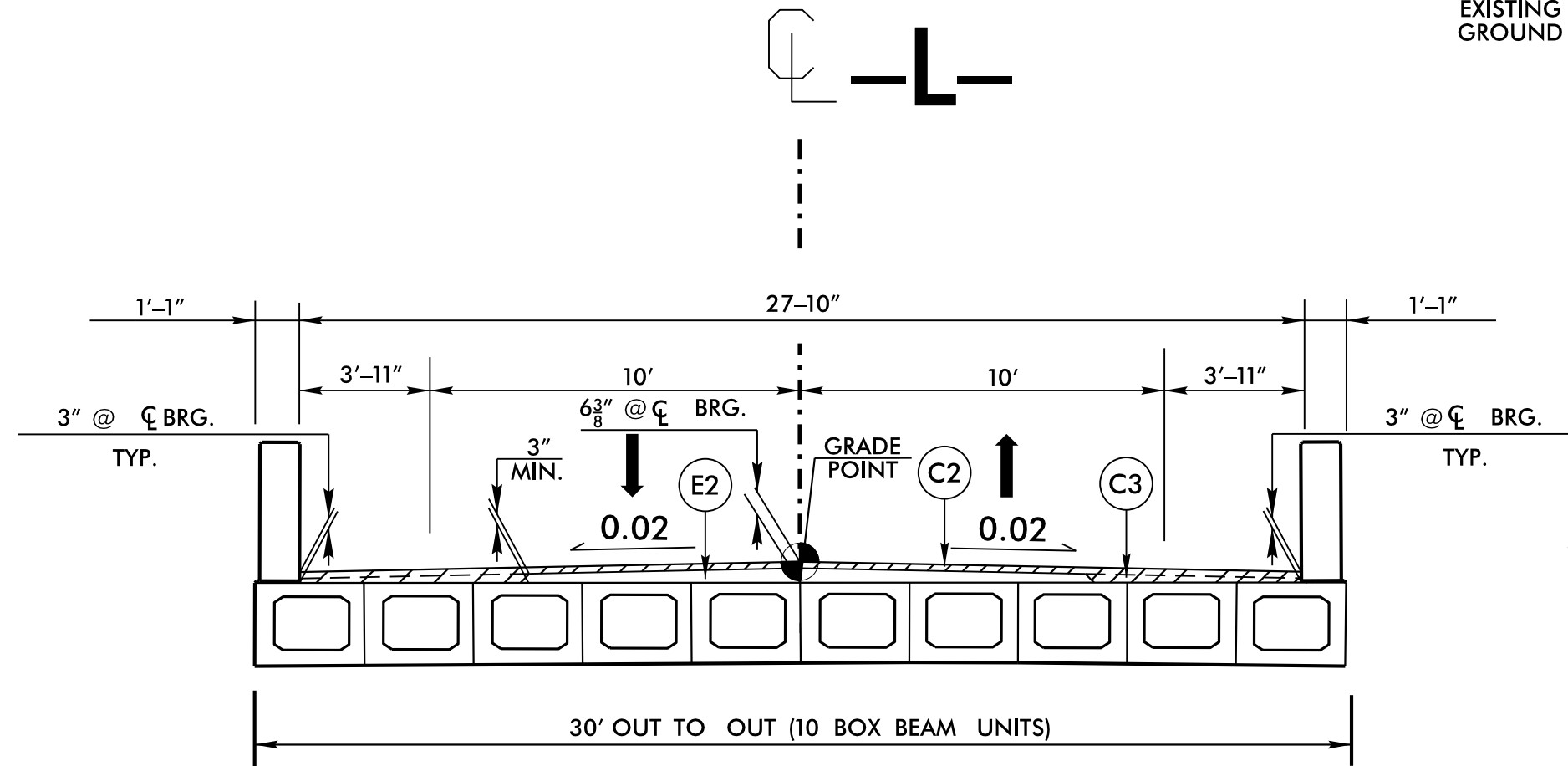
PROJECT REFERENCE NO. B-5360	SHEET NO. 2A-1
ROADWAY DESIGN ENGINEER SEAL 020111 <i>Robert K. Boyak</i>	PAVEMENT DESIGN ENGINEER SEAL 022896 <i>Clark Morrison</i>
<small>Documented by 7/28/2016</small> <small>Documented by 7/29/2016</small>	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.
C2	PROP. APPROX. 2 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1 1/2" IN DEPTH.
E1	PROP. APPROX. 5 1/2" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5 1/2" IN DEPTH.
J	PROP. 6" AGGREGATE BASE COURSE.
P	PRIME COAT AT THE RATE OF 0.35 GAL. PER SQ. YD.
R	CONCRETE SHOULDER BERM GUTTER.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
W	VARIABLE DEPTH ASPHALT PAVEMENT. (SEE WEDGING DETAIL)

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE

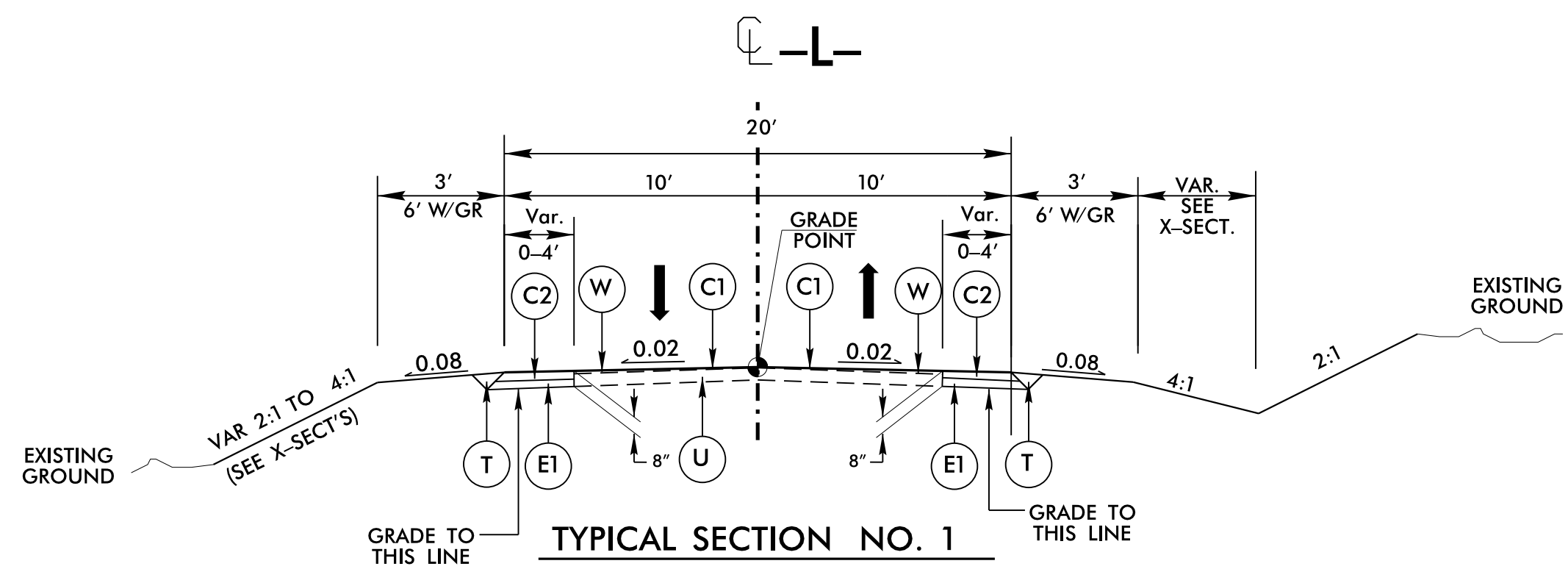


DETAIL SHOWING METHOD OF WEDGING



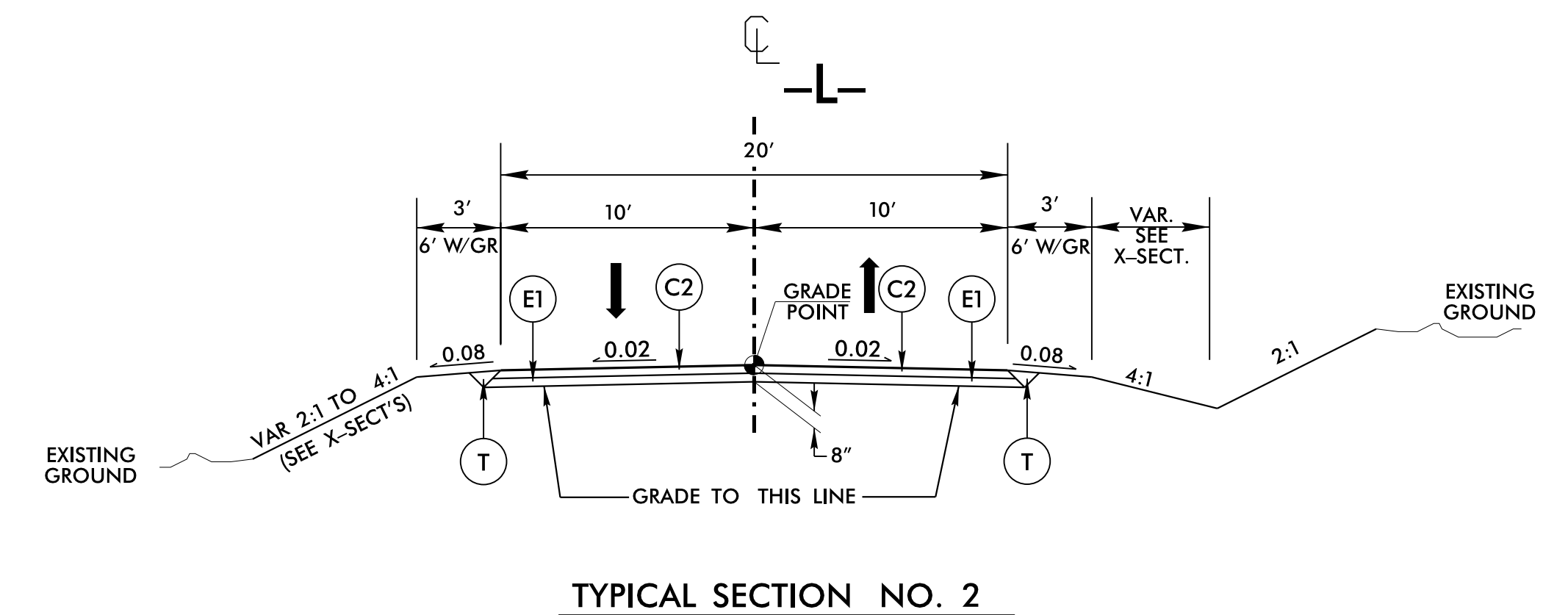
TYPICAL SECTION ON STRUCTURE

BEGIN BRIDGE -L- STA. 22+21.70 TO END BRIDGE -L- STA. 25+14.30



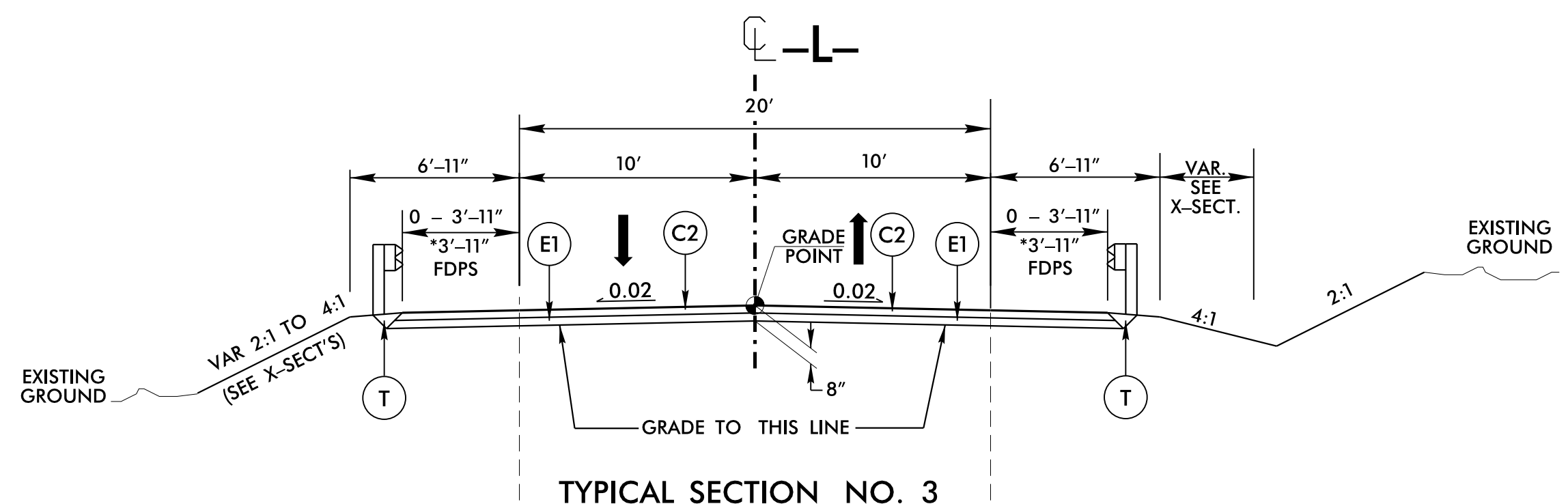
TYPICAL SECTION NO. 1

-L- STA. 13+00.00 TO -L- STA. 15+20.00



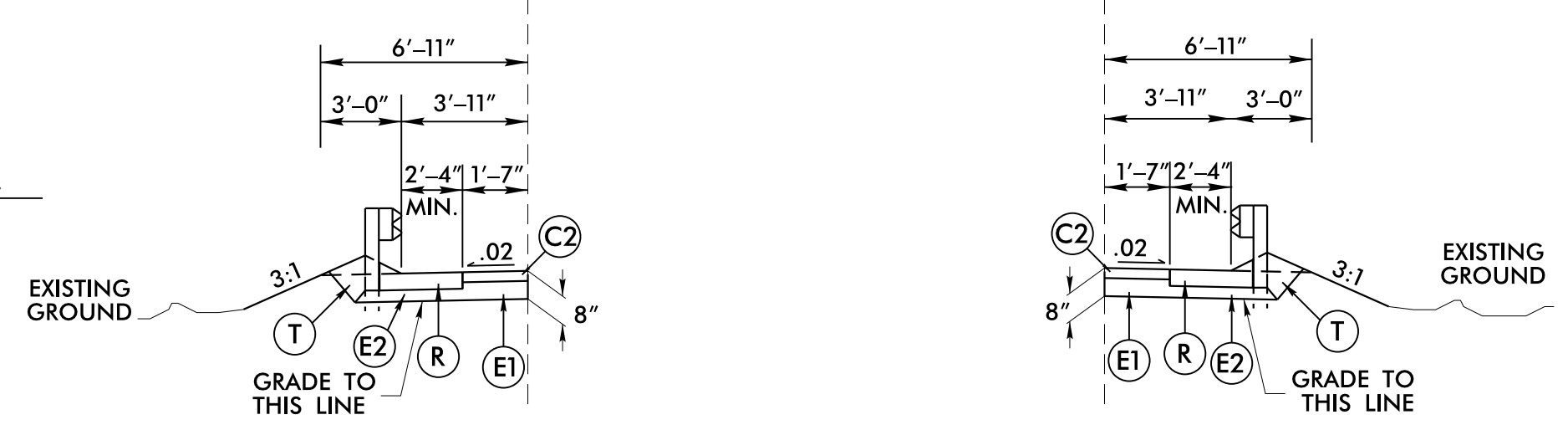
TYPICAL SECTION NO. 2

-L- STA. 15+20.00 TO -L- STA. 21+40.00
-L- STA. 25+97.00 TO -L- STA. 33+15.70



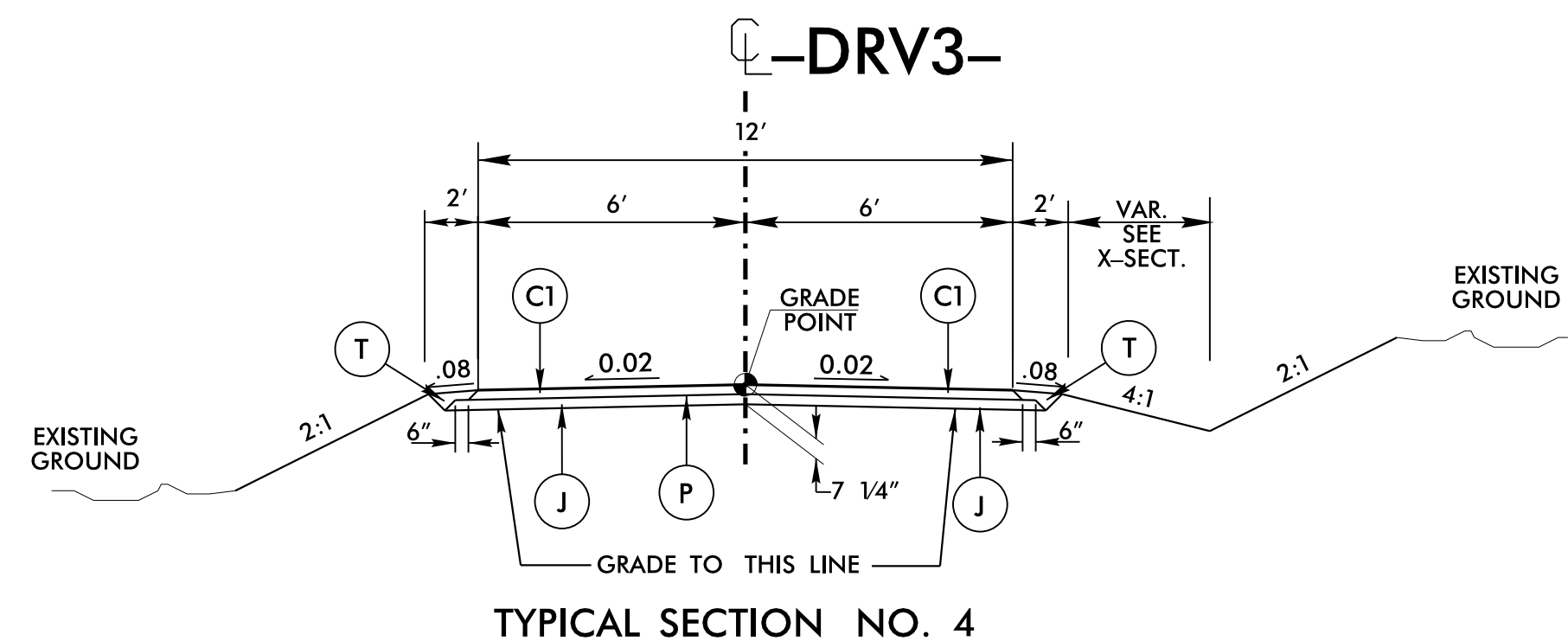
TYPICAL SECTION NO. 3

-L- STA. 21+40.00 TO -L- STA. 22+21.70 (BEGIN BRIDGE)
-L- STA. 25+14.30 (END BRIDGE) TO -L- STA. 25+97.00
* 3'-11" GR OFFSET TIES TO BRIDGE RAIL OFFSET



NOTE:

INSTALL SHOULDER BERM GUTTER (SBG) AS FOLLOWS.
-L- STA. 21+73.00 TO STA. 22+19.00 LT.
-L- STA. 21+73.00 TO STA. 22+04.00 RT.

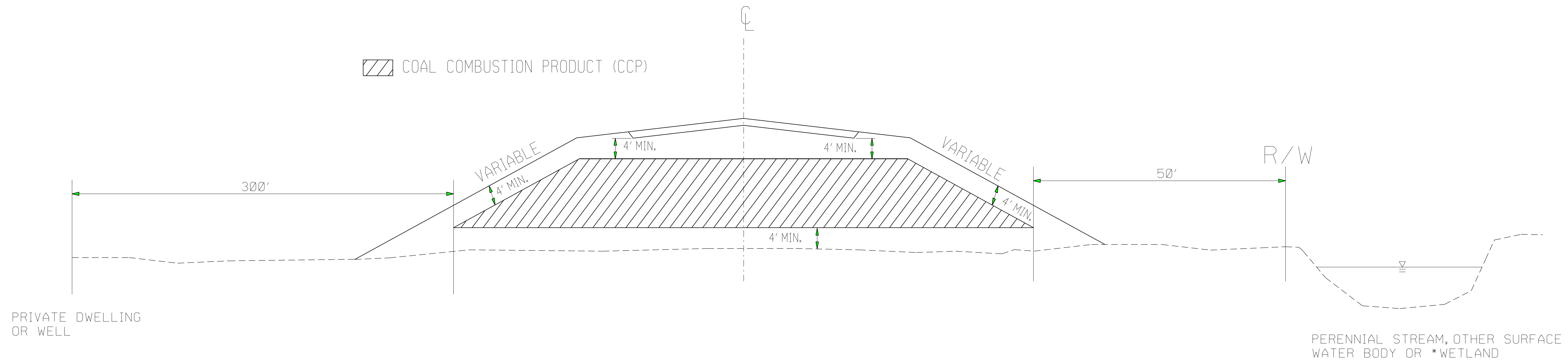


TYPICAL SECTION NO. 4

-DRV3- STA. 10+00.00 TO -DRV3- STA. 12+39.47

26 JUL 2016 09:54 B-5360.Rdy-tyr.dgn

COAL COMBUSTION PRODUCT PLACEMENT



PLACE CCP IN HATCHED AREA IN ACCORDANCE WITH THE PROJECT SPECIAL PROVISIONS

PLACE CCP A MINIMUM OF 5' ABOVE SEASONAL HIGH GROUND WATER

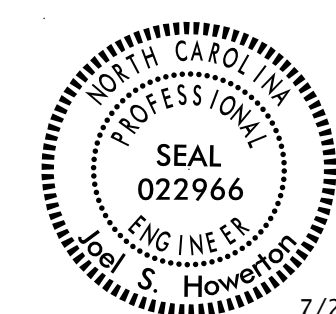
PLACE AT LOCATIONS AS APPROVED BY THE ENGINEER

PLACE SOIL BORROW MATERIAL ON THE OUTSIDE OF CCP AS EACH LIFT OF CCP IS PLACED

*(OBTAIN PERMISSION FROM ARMY CORPS OF ENGINEERS)

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7/28/2016

Designed by:
Joel Howerton
878F3D17CDDC45F...

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950 FAX 919-250-4119	
COAL COMBUSTION PRODUCT PLACEMENT DETAIL	
ORIGINAL BY: J.S.H.	DATE: 3/16/15
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.: joel/coal combustion material detail.dgn	

COMPUTED BY: CAY DATE: 12/12/2014
 CHECKED BY: KBM DATE: 12/12/2014

PROJECT NO. SHEET NO.
 B-5360 3G-1

**STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS**

SUMMARY OF SUBSURFACE DRAINAGE

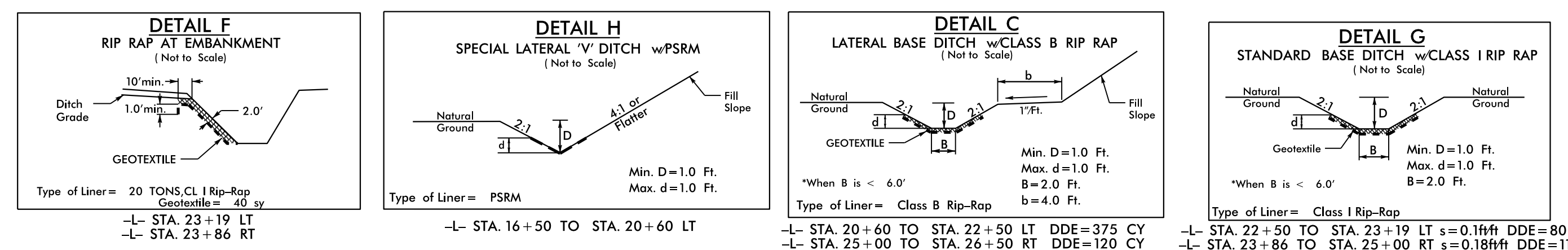
LINE	Station	Station	Location LT/RT/CL	Drain Type* UD/BD/SD	LF
			CONTINGENCY	UD	100
			B-5360 TOTAL LF:		100
			B-5546 TOTAL LF:		0
			GRAND TOTAL LF:		100

*UD = Underdrain
 *BD = Blind Drain
 *SD = Subsurface Drain

SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION

LINE	Station	Station	Aggregate Type* ASU/AST	Aggregate Thickness INCHES	Shallow Undercut CY	Class IV Subgrade Stabilization TONS	Geotextile for Soil Stabilization SY	Stabilizer Aggregate TONS	Class IV Aggregate Stabilization TONS	
			CONTINGENCY	ASU	12	100	190	300	0	0
			B-5360 TOTAL CY/TONS/SY:		100	190	300**	0	0	
			B-5546 TOTAL CY/TONS/SY:		100	200	200**	0	0	
			GRAND TOTAL CY/TONS/SY:		200	390	500**	0	0	

*ASU = Aggregate Subgrade
 *AST = Aggregate Stabilization
 **Total square yards of "Geotextile for Soil Stabilization" is only the estimated quantity for ASU/AST and may only represent a portion of the geotextile quantity shown in the Item Sheets of the Proposal.

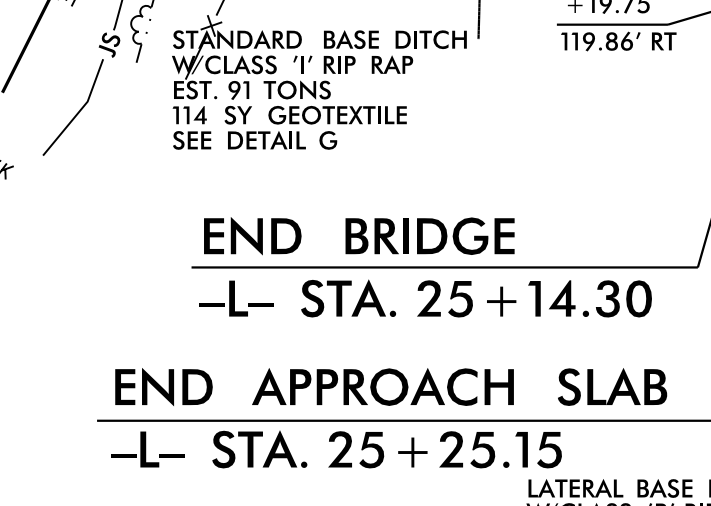
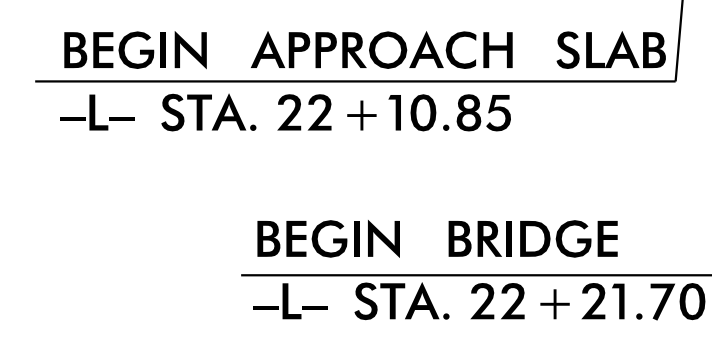
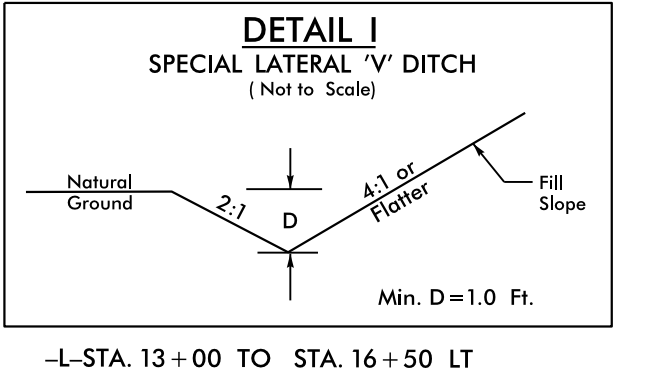
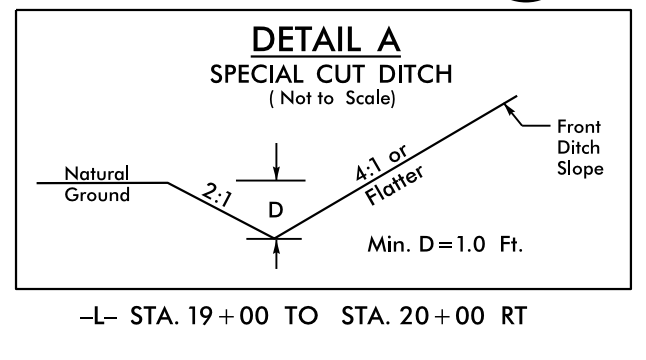
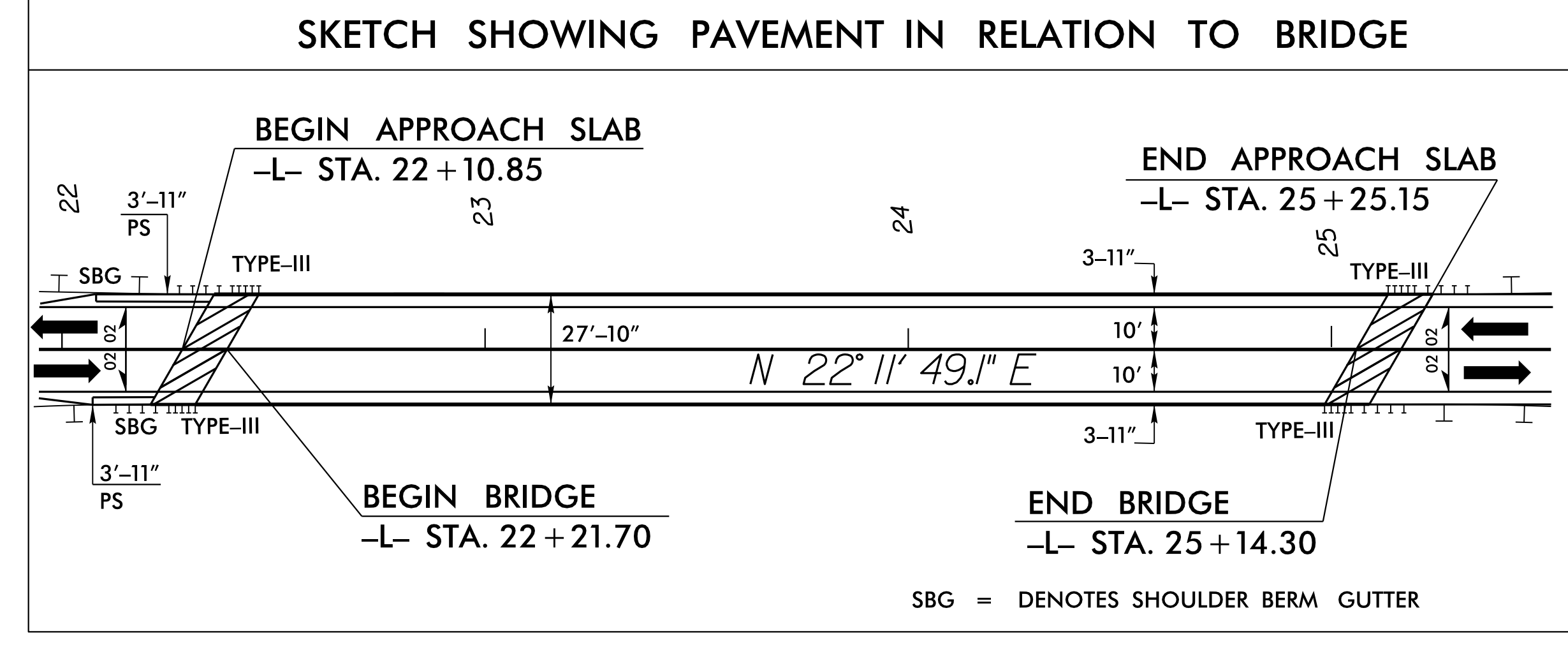
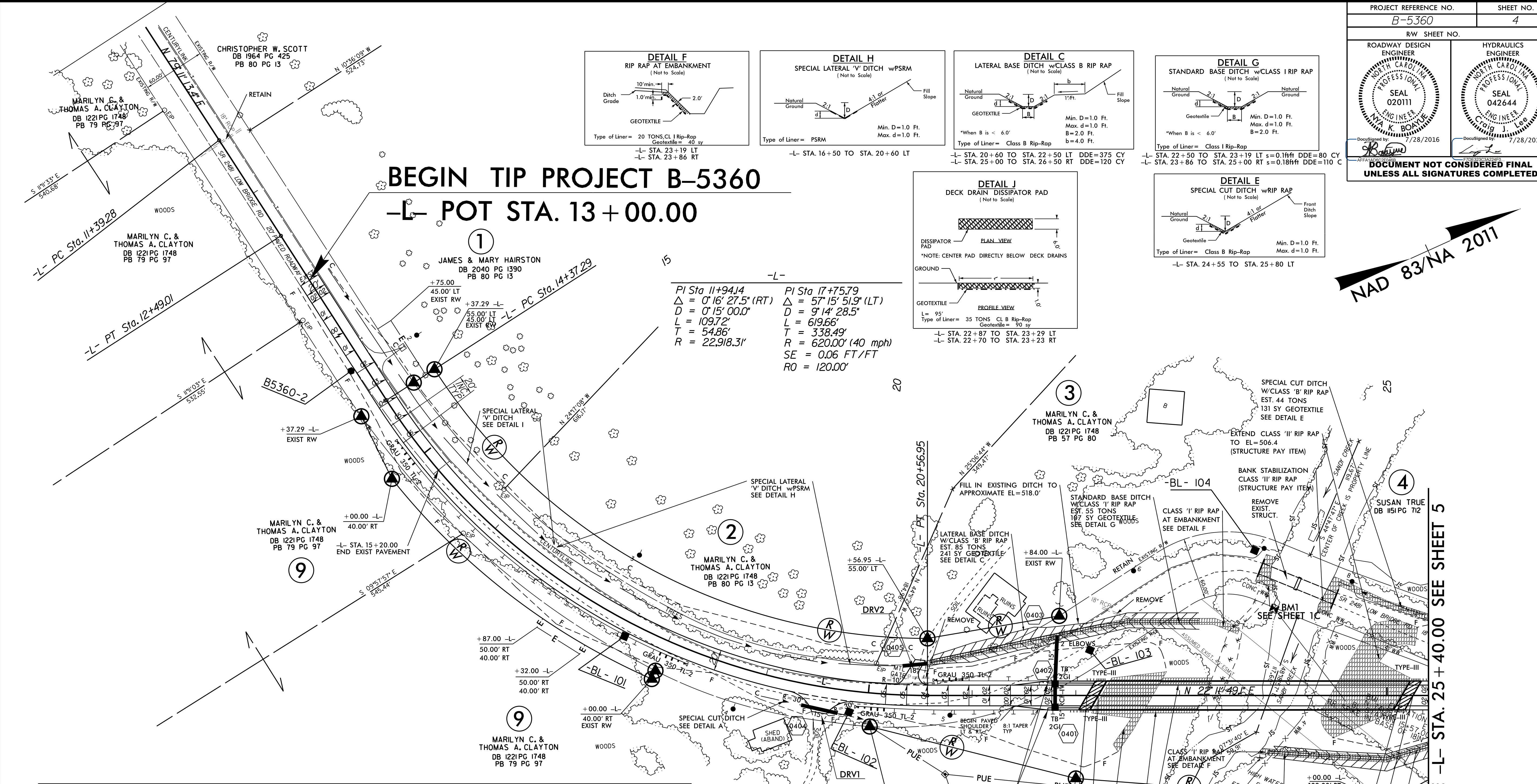


BEGIN TIP PROJECT B-5360

-L- POT STA. 13 + 00.00

PI Sta 11+94.14
 $\Delta = 0' 16' 27.5''$ (RT)
 $D = 0' 15' 00.0''$
 $L = 109.72'$
 $T = 54.86'$
 $R = 22.918.31'$

PI Sta 17+75.79
 $\Delta = 5' 15' 51.9''$ (LT)
 $D = 9' 14' 28.5''$
 $L = 619.66'$
 $T = 338.49'$
 $R = 620.00'$ (40 mph)
 $SE = 0.06$ FT/FT
 $RO = 120.00'$



DECK DRAINS REQUIRED
 FROM 1/8" SLOTS ON 3" CENTERS
 STA. 24+49 TO STA. 25+15 LT.
 FROM STA. 22+21 TO STA. 22+56 &
 STA. 24+35 TO STA. 24+99 RT.

SEE SHEET 6 FOR PROFILE
 SEE SHEETS S-1 TO S-22 FOR STRUCTURE PLANS

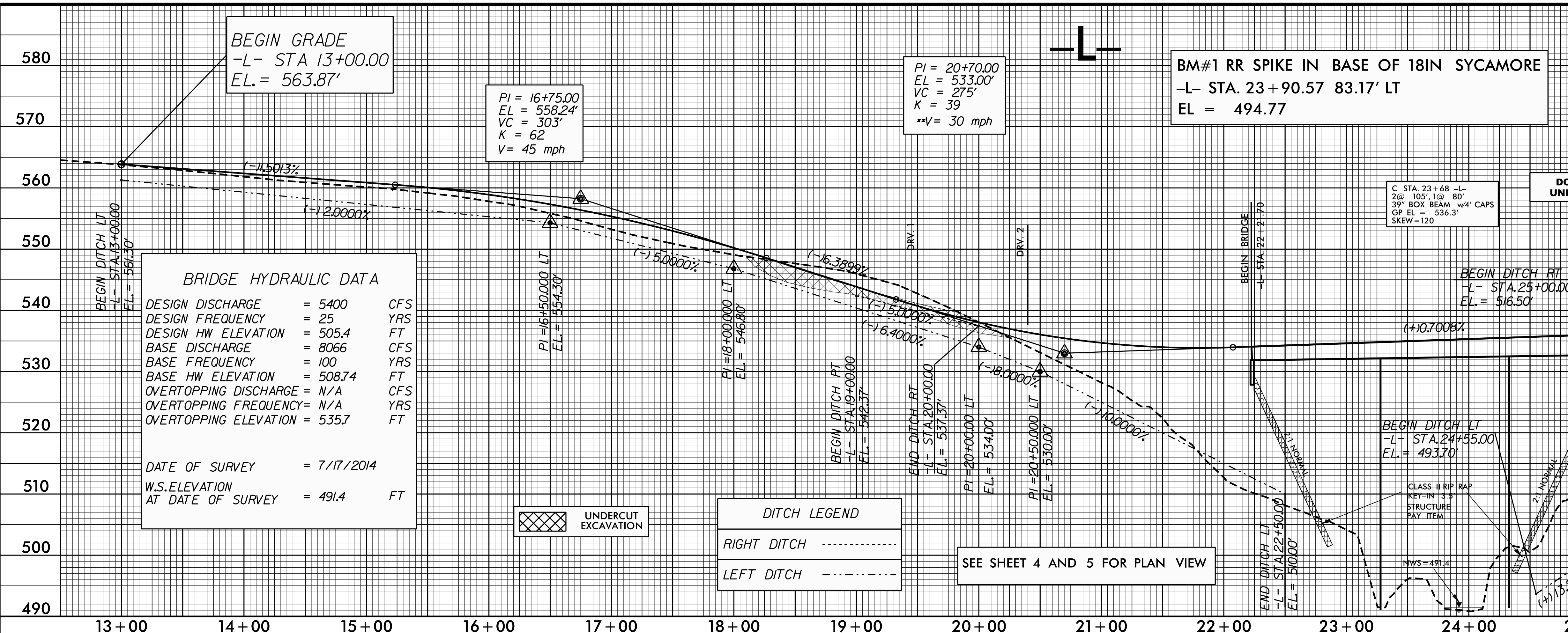
NAD 83/NA 2011

MATCHLINE -L- STA. 25 + 40.00 SEE SHEET 5

REVISIONS

8/17/19
 28 JUL 2016 09:10 B-5360-ps4.dgn
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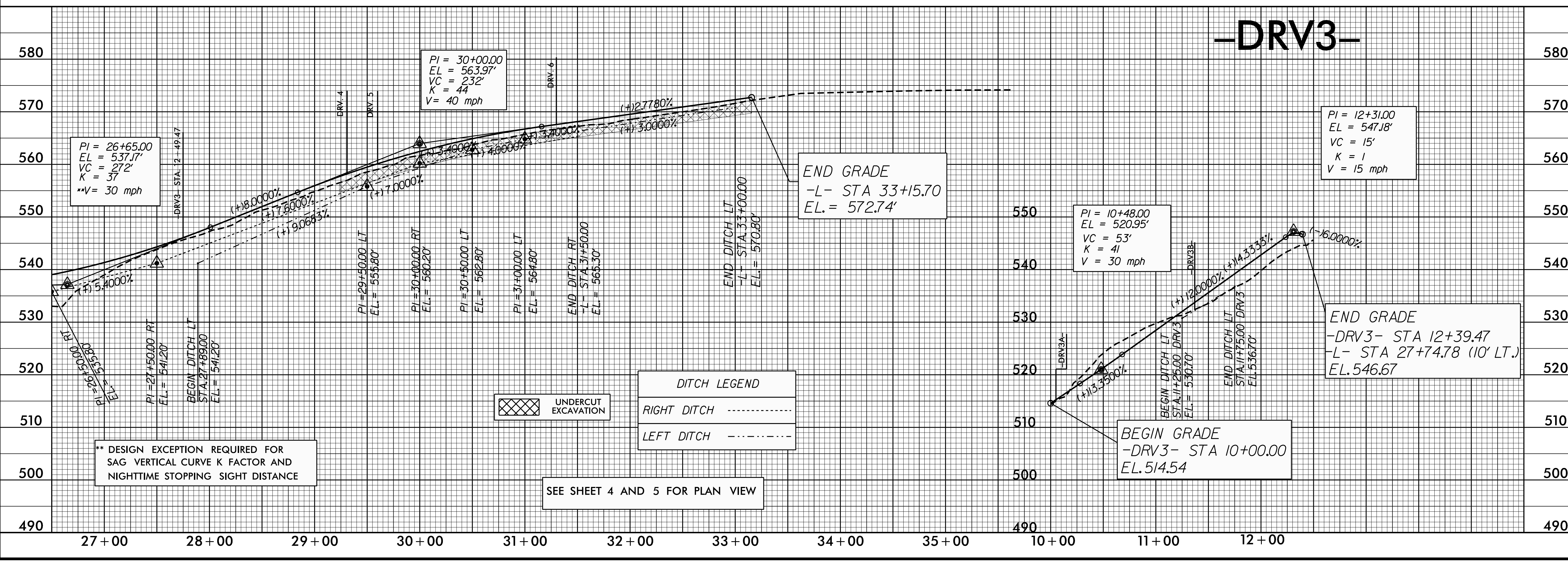
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NOTE: GEOTECH. REQUESTED 2:1 SLOPES FOR THE PROPOSED SPILL THROUGH DUE TO HEIGHT OF SLOPE

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-DRV3-